REMARKS

Reconsideration of the application is respectfully requested for the following reasons:

1. Amendments

The claims, specification, and abstract have been revised to refer to "neck portions" of the poles. In particular, previous references to "poles 42" to have been changed to –neck portions 42–. As can be seen in Figs. 4 and 6, the poles of the silicon steel structure clearly include pole faces 43 as well as elements 42. Since the pole faces are also parts of the poles, it is more accurate to refer to the poles as *including* the pole faces 43 and "neck portions" 42, rather than to refer to pole faces 43 and poles 42.

Because the amendments merely involve a change of terminology for what is clearly shown in the drawings, the change being made in the interest of accuracy, it is respectfully submitted that the amendments do not involve "new matter" and entry and consideration of the amendments is respectfully requested.

2. Rejection of Claims 1-7 Under 35 USC §103(a) in view of Japanese Patent Publication Nos. JP 8-149732 (Nitta) and JP 2002-44894 (Morohashi) or JP 2001-54246 (Hirano)

This rejection is respectfully traversed on the grounds that neither the Nitta publication nor the Morohashi and Hirano publications discloses or suggests, whether considered individually or in any reasonable combination, an insulating jacket including a single body having multiple radially extending plates forming recesses, distal ends of sides of the recesses forming snaps that permit the radially extending plates to be snapped onto neck portions of the stator, as claimed.

The Nitto insulating jacket includes two bodies, with the top body including hook 41 so that is can be snapped onto a lower body. No part of the jacket is snapped onto neck portions of the stator, and the radially extending plates of the Nitto jacket do not include snaps at distal ends of sides of the recesses that receive the neck portions.

The Hirano publication discloses an insulating structure that snaps onto poles, but the insulating structure only snaps onto three of the 22 illustrated poles, and does not space any of the poles from a winding, as claimed. Instead, the insulating structures of Hirano merely extend between the windings surrounding the poles. As a result, the insulating structure disclosed in the Hirano publication does not correspond to the claimed insulating jacket. Furthermore, there is no suggestion of replacing any portion of the jacket structure disclosed in Netta with the attachment structure disclosed by Hirano, which is intended to be added after winding of the coils rather than to form a simplified coil support. Similarly, while the Morohashi patent also discloses an insulating structure that snaps onto poles, the insulating structure only snaps onto a single pole, does not include a body with a through hole, and thus multiple insulating structures are required. An alternative embodiment of the insulator of Morohashi, disclosed in Fig. 5, covers multiple poles but does not have the snap-on structure of the claimed insulator.

In summary, none of the cited Japanese publications discloses or suggests, whether considered individually or in any reasonable combination, a single insulator member that snaps onto neck portions of all of the poles of a stator, as claimed. Since none of the cited publications discloses or suggests this positively-recited feature of the claimed invention, it is respectfully submitted that the rejection of claims 1-3 under 35 USC §103(a) is improper and should be withdrawn.

Having thus overcome each of the rejections made in the Official Action, withdrawal of the rejections and expedited passage of the application to issue is requested.

Respectfully submitted,
BACON & THOMAS, PLLC

Date: May 21, 2003

By: BENJAMIN E. URCIA
Registration No. 33,805

BACON & THOMAS, PLLC
625 Slaters Lane, 4th Floor
Alexandria, Virginia 22314
Telephone: (703) 683-0500

APPENDIX A
(Clean Copy Of Amended Claims)

1. (Amended) An insulating jacket structure of a stator of a direct current motor, the stator including a silicon steel plate assembly that forms a hub, pole-faces, and neck portions connecting the hub with the pole-faces, said jacket structure comprising;

a single body, having a through hole; and

multiple extension plates, radially extended outward from the through hole of the body, each of the multiple extension plates having a receiving recess adapted to accommodate a respective said neck portion of the silicon steel plate assembly, the receiving recess of each of the multiple extension plates having two sides having two distal ends each formed with a protruding locking snap adapted to lock the respective said neck portion of the silicon steel assembly in the receiving recess and to insulate the neck portion from a wire wound around a corresponding one of said extension plates.

5. (Amended) An insulating jacket structure of a stator of a direct current motor, comprising:

a single insulating jacket body, having a through hole;

multiple extension plates, radially extended outward from the through hole of the insulating jacket body, each of the multiple extension plates having a receiving recess adapted to accommodate a respective silicon steel neck portion, the receiving recess of the each of the multiple extension plates having two sides having two distal ends each formed with a protruding locking snap adapted to lock the respective said neck portion in the receiving recess and to insulate the neck portions from a wire wound around a corresponding one of said extension plates;

multiple outer annular plates extended outward from the two sides of the receiving recess at the distal ends of each of the multiple extension plates, and a gap being formed between any two adjacent outer annular plates; and

a silicon steel plate assembly, laminated by multiple silicon steel plates, and having a hub and multiple poles, said multiple poles each including a pole face and a respective said neck portion connecting the pole face to the hub, each of the neck portions of the silicon steel plate

assembly received in the receiving recess of each of the multiple extension plates of the insulating jacket, wherein the silicon steel plate located at the lowermost layer of the silicon steel plate assembly is snapped and locked by the locking snaps protruded from the two distal ends of the receiving recess, the hub of the silicon steel plate assembly is located in the through hole of the insulating jacket body, and each of the pole faces is located outside of each of the multiple outer annular plates.

APPENDIX B
(Marked-Up Copy Of Amended Claims)

1. (Amended) An insulating jacket structure of a stator of a direct current motor, the stator including a silicon steel plate assembly that forms a hub, pole-faces, and neck portions connecting the hub with the pole-faces, said jacket structure comprising;

a single body, having a through hole; and

multiple extension plates, radially extended outward from the through hole of the body [in a radiating manner], each of the multiple extension plates having a receiving recess [whose cross-section is substantially inverted U-shaped] adapted to accommodate a respective said neck portion of the silicon steel plate assembly, the receiving recess of each of the multiple extension plates having two sides having two distal ends each formed with a protruding locking snap adapted to lock the respective said neck portion of the silicon steel assembly in the receiving recess and to insulate the neck portion from a wire wound around a corresponding one of said extension plates.

5. (Amended) An insulating jacket structure of a stator of a direct current motor, comprising:

[an] a single insulating jacket body, having a through hole;

multiple extension plates, radially extended outward from the through hole of the insulating jacket body [in a radiating manner], each of the multiple extension plates having a receiving recess [whose cross-section is substantially inverted U-shaped] adapted to accommodate a respective silicon steel neck portion, the receiving recess of the each of the multiple extension plates having two sides having two distal ends each formed with a protruding locking snap adapted to lock the respective said neck portion in the receiving recess and to insulate the neck portions from a wire wound around a corresponding one of said extension plates;

multiple outer annular plates extended outward from the two sides of the receiving recess at the distal ends of each of the multiple extension plates, and a gap being formed between any two adjacent outer annular plates; and

a silicon steel plate assembly, laminated by multiple silicon steel plates, and having a hub[,] and multiple poles [and], said multiple poles each including a pole [faces] face and a respective said neck portion connecting the pole face to the hub, each of the [poles] neck portions of the silicon steel plate assembly received in the receiving recess of each of the multiple extension plates of the insulating jacket, wherein the silicon steel plate located at the lowermost layer of the silicon steel plate assembly is snapped and locked by the locking snaps protruded from the two distal ends of the receiving recess, the hub of the silicon steel plate assembly is located in the through hole of the insulating jacket body, and each of the pole faces is located outside of each of the multiple outer annular plates.

APPENDIX C
(Clean Copy Of Amended Paragraphs)

Page 2, lines 4-18:

In accordance with the present invention, an insulating jacket structure of a stator of a direct current motor includes an insulating jacket body having a through hole, and multiple extension plates extended outward from the through hole of the insulating jacket body in a radiating manner. Each of the multiple extension plates has a receiving recess whose cross-section is substantially inverted U-shaped. The receiving recess of each of the multiple extension plates has two sides having two distal ends each formed with a protruding locking snap. Multiple outer annular plates are extended outward from the two sides of the receiving recess at the distal ends of each of the multiple extension plates, and a gap is formed between any two adjacent outer annular plates. Neck portions of the poles of the silicon steel plate assembly of the stator are received in the receiving recess of the insulating jacket, and the silicon steel plate located at the lowermost layer of the silicon steel plate assembly is snapped and locked by the locking snaps protruded from the two distal ends of the receiving recess.

Page 4, line 13 to Page 5, line 11:

Referring to Figs. 4 and 5, the body 1 is combined with the silicon steel plate assembly 4. The silicon steel plate assembly includes a hub 41, pole-faces 43, and neck portions 42 connecting the hub 41 and pole-faces 43. After lamination of the silicon steel plate assembly 4, the silicon steel plate assembly 4 is placed in the insulating jacket directly. The multiple extension plates 2 are mounted on the neck portions 42 of the silicon steel plate assembly 4 and the lowermost layer of the silicon steel plate assembly 4 are snapped and locked by the locking snaps 22. Thus, the silicon steel plate assembly 4 may be hidden in the insulating jacket. At this time, the hub 41 of the silicon steel plate assembly 4 is located in the through hole 11 of the body 1, each of the poles 42 is received in the receiving recess 21 of each of the multiple extension plates 2, and the pole face 43 is located outside of the multiple outer annular plates 3. Thus, when the coating wires are placed into the gaps 31 between the multiple outer annular plates 3 to perform the winding work, the coating wires may be wound around the peripheral surface of

the multiple extension plates 2 between the body 1 and the multiple outer annular plates 3 of the insulating jacket. Each of the neck portions 42 of the poles of the silicon steel plate assembly 4 are snapped and locked by the locking snaps 22 at the two sides of the receiving recess 21 of each of the multiple extension plates 2, so that a distance is formed between each of the [poles] neck portions 42 of the silicon steel plate assembly 4 and the top of the locking snap 22 of the receiving recess 21 of each of the multiple extension plates 2. Thus, when the coating wires will be spaced from and will not contact the neck portions 42 of the poles. Further, when each of the multiple extension plates 2 is provided with the protruding plate 23, the wound coating wires may be collected and positioned on the peripheral surfaces of the multiple extension plates 2, and will not slip from the multiple extension plates 2.

APPENDIX D
(Marked-Up Copy Of Amended Paragraphs)

Page 2, lines 4-18:

In accordance with the present invention, [there is provided] an insulating jacket structure of a stator of a direct current motor includes an insulating jacket body having a through hole, and multiple extension plates extended outward from the through hole of the insulating jacket body in a radiating manner. Each of the multiple extension plates has a receiving recess whose cross-section is substantially inverted U-shaped. The receiving recess of each of the multiple extension plates has two sides having two distal ends each formed with a protruding locking snap. Multiple outer annular plates are extended outward from the two sides of the receiving recess at the distal ends of each of the multiple extension plates, and a gap is formed between any two adjacent outer annular plates. [The] Neck portions of the poles of the silicon steel plate assembly of the stator are received in the receiving recess of the insulating jacket, and the silicon steel plate located at the lowermost layer of the silicon steel plate assembly is snapped and locked by the locking snaps protruded from the two distal ends of the receiving recess.

Page 4, line 13 to Page 5, line 11:

Referring to Figs. 4 and 5, the body 1 is combined with the silicon steel plate assembly 4. The silicon steel plate assembly includes a hub 41, pole-faces 43, and neck portions 42 connecting the hub 41 and pole-faces 43. After lamination of the silicon steel plate assembly 4, the silicon steel plate assembly 4 is placed in the insulating jacket directly. The multiple extension plates 2 are mounted on the [poles] neck portions 42 of the silicon steel plate assembly 4 and the lowermost layer of the silicon steel plate assembly 4 are snapped and locked by the locking snaps 22. Thus, the silicon steel plate assembly 4 may be hidden in the insulating jacket. At this time, the hub 41 of the silicon steel plate assembly 4 is located in the through hole 11 of the body 1, each of the poles 42 is received in the receiving recess 21 of each of the multiple extension plates 2, and the pole face 43 is located outside of the multiple outer annular plates 3. Thus, when the coating wires are placed into the gaps 31 between the multiple outer annular plates 3 to perform the winding work, the coating wires may be wound around the peripheral

surface of the multiple extension plates 2 between the body 1 and the multiple outer annular plates 3 of the insulating jacket. Each of the [poles] neck portions 42 of the poles of the silicon steel plate assembly 4 are snapped and locked by the locking snaps 22 at the two sides of the receiving recess 21 of each of the multiple extension plates 2, so that a distance is formed between each of the [poles] neck portions 42 of the silicon steel plate assembly 4 and the top of the locking snap 22 of the receiving recess 21 of each of the multiple extension plates 2. Thus, when the coating wires will be spaced from and will not contact the [poles] neck portions 42 of the poles. Further, when each of the multiple extension plates 2 is provided with the protruding plate 23, the wound coating wires may be collected and positioned on the peripheral surfaces of the multiple extension plates 2, and will not slip from the multiple extension plates 2.

APPENDIX E
(Clean Copy Of Amended Abstract)

An insulating jacket structure of a stator of a direct current motor includes a body, and multiple extension plates extended outward from the body. Each of the extension plates has an inverted U-shaped receiving recess which has two sides having two distal ends each formed with a protruding locking snap. Multiple outer annular plates are extended outward from the two sides of the receiving recess, and a gap is formed between any two adjacent outer annular plates. Neck portions of the poles of the silicon steel plate assembly of the stator are received in the receiving recess, and the silicon steel plate located at the lowermost layer of the silicon steel plate assembly is snapped and locked by the locking snaps of the receiving recess.

APPENDIX F
(Marked-Up Copy Of Amended Abstract)

An insulating jacket structure of a stator of a direct current motor includes a body, and multiple extension plates extended outward from the body. Each of the extension plates has an inverted U-shaped receiving recess which has two sides having two distal ends each formed with a protruding locking snap. Multiple outer annular plates are extended outward from the two sides of the receiving recess, and a gap is formed between any two adjacent outer annular plates. [The] Neck portions of the poles of the silicon steel plate assembly of the stator are received in the receiving recess, and the silicon steel plate located at the lowermost layer of the silicon steel plate assembly is snapped and locked by the locking snaps of the receiving recess.